

complete scope of protection. Claims 124 and 134-135 are rejected in their independent form.

Favorable reconsideration is requested.

Claims 124-134 were rejected under 35 U.S.C. § 103 as being obvious over the combination of U.S. Patent 5,398,311 (Seto) in view of U.S. Patent 4,897,638 (Kokunishi) and U.S. Patent 5,562,350 (Sakurai).

Amended Claim 124 recites, *inter alia*, a storage medium for storing information for a plurality of outline points of a pattern. The information for at least one of the outline points includes a plurality of vector data corresponding to a plurality of weight value ranges. Each of the vector data indicates a movement track of the outline point according to a change of a weight value within a corresponding weight value range. The plurality of vector data and the corresponding weight value ranges are definable independently for each outline point.

Seto relates to character processing that involves moving outline points in a horizontal direction to maintain horizontal line width of a pattern, or in a vertical direction to maintain vertical line width of a pattern. According to Seto, each outline point moves in only a horizontal or vertical direction.

Kokunishi relates to generating outline data from skeleton data and width data. According to Kokunishi, a predetermined sequence is applied so as to generate various line widths; see Fig. 5 and column 11, lines 17-65.

As acknowledged in the Office Action, the combination of Seto and Kokunishi does not teach or suggest providing a plurality of vector data for each outline point. *A fortiori*, the combination of Seto and Kokunishi does not teach or suggest a

plurality of vector data and corresponding weight value ranges that are definable independently for each outline point, as recited in amended Claim 124.

Sakurai relates to an output apparatus that selects a font or a pattern from among plural vector character fonts or patterns, each of which is assigned an effective size range. However, Sakurai does not remedy the failure of the combination of Seto and Kokunishi to teach or suggest a plurality of vector data and corresponding weight value ranges that are definable independently for each outline point, as recited in amended Claim 124. To the contrary, for a given size, Sakurai selects a vector character font that generates the entire character.

Even if one would have been motivated to combine Sakurai with Seto and Kokunishi in the manner hypothesized by the Examiner, the resulting combination would still fail to teach or suggest the invention of Claim 124. At most, such a combination might provide plural vector sets corresponding to a plurality of weight value ranges. Under such an arrangement, if a vector datum were changed for only one outline point, two vector sets would be required, each containing data for the entire character. These vector sets would contain a large amount of unchanged, redundant vector data. By contrast, as discussed above, the invention of Claim 124 allows vector data and corresponding weight value ranges to be defined independently for each outline point.

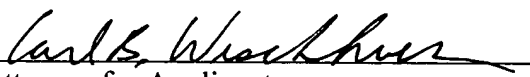
Independent Claims 134-136 are method, computer program product and computer readable medium claims respectively corresponding to apparatus Claim 124, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 124.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

  
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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

124. (Amended) An outline forming apparatus, comprising:

a storage medium[, for storing[:] information for a plurality of outline points of a pattern, wherein the information for at least one of the outline points includes [a plurality of coordinate data, including a coordinate datum indicating a first outline point of a pattern corresponding to a first weight value and a coordinate datum indicating a second outline point of a pattern corresponding to a second weight value, said second weight value indicating a weight value at which vector data change,] a plurality of vector data corresponding to a plurality of weight value ranges, [including a vector datum indicating] each of the vector data indicating a movement track of the [first] outline point according to a change of a weight value within a corresponding weight value range, [to the second outline point and a vector datum indicating a movement track of the second outline point,] wherein the plurality of vector data and the corresponding weight value ranges are definable independently for each outline point, and

[identification information indicating correspondence between each of the vector data and respective weight values;

an inputter, for inputting a weight value;]

an acquiring unit, arranged for acquiring [coordinate and vector data] a vector datum corresponding to [the] an input weight value [input by said inputter], from said storage medium, for each outline point [by referring to the identification information]; and

a calculation unit, arranged for calculating coordinate data of [an] each outline point of a pattern to be output, based on the input weight value [input by said inputter the coordinate data] and the vector data acquired by said acquiring unit.

134. (Amended) An outline forming method comprising the steps of: [utilizing a storage medium which stores:

a plurality of coordinate data including a coordinate datum indicating a first outline point of a pattern corresponding to a first weight value and a coordinate datum indicating a second outline point of a pattern corresponding to a second weight value, the second weight value indicating a weight value at which vector data change;]

storing information for a plurality of outline points of a pattern, wherein the information for at least one of the outline points includes a plurality of vector data corresponding to a plurality of weight value ranges, [including a vector datum indicating] each of the vector data indicating a movement track of the [first] outline point according to a change of a weight value within a corresponding weight value range, [to the second outline point and a vector datum indicating a movement track of the second outline point;] wherein the plurality of vector data and the corresponding weight value ranges are definable independently for each outline point, and

[identification information indicating correspondence between each of the vector data and respective weight values, said method comprising the steps of:

inputting a weight value;]

acquiring [coordinate data and vector data] a vector datum corresponding to [the] an input weight value for each outline point [input in said inputting step, from the storage medium, by referring to the identification information]; and

calculating coordinate data of [an] each outline point of a pattern to be output, based on the input weight value [input in said inputting step and the coordinate data] and the vector data acquired in said acquiring step.

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